

**What is claimed is:**

1           1.       A method of determining current bandwidth allocation of packetized  
 2       communications traffic of a router, said method comprising the steps of:  
 3           periodically querying endpoints based on identification from a corresponding  
 4       router connection table;  
 5           obtaining a current connection status and bandwidth utilization of said endpoints  
 6       based on a response to said querying;  
 7           calculating current bandwidth allocation for a specific type communications  
 8       service handled by said router.

1           2.       The method of Claim 1, wherein said method is accomplished on a per  
 2       interface basis for each router.

1           3.       The method of Claim 1, further including the step of admitting additional  
 2       communications traffic connections if bandwidth for said specific type communications  
 3       service is available.

1           4.       The method of Claim 1, further including dropping packets of any new  
 2       call if bandwidth is not available.

1           5.       The method of Claim 4, wherein the router obtains the Call\_Ref value of a  
 2       new connection that cannot be handled and message is sent to the corresponding endpoint  
 3       to terminate the call.

1           6.       The method of Claim 1, wherein said querying includes sending of a  
 2       H.323 IRQ and a response to said querying includes receiving an IRR message.

1           7.       The method of Claim 3, wherein said step of admitting additional  
 2       communications traffic includes determining a type of connection to be made by  
 3       identifying addresses, TOS (type of service) and respective socket number range.

1           8.       The method of Claim 1, wherein said querying process is periodically  
 2       reset.

1           9.       A method for managing traffic flowing through individual routers of a  
 2       packet network, said method comprising the steps of:

3 reserving a given amount of bandwidth on interfaces of said individual routers for  
4 specific types of communications traffic;

5 identifying endpoint connections of said interfaces;

6 periodically querying said endpoint connections;

7 receiving responses from said periodic querying to determine a current connection  
8 status and bandwidth allocation of said endpoints;

9 calculating current bandwidth allocation for an interface of said router; and

10 admitting additional communications traffic over an interface for a specific type  
11 of communications service if bandwidth is available.

1 10. The method of Claim 9, further including dropping packets of any new  
2 call if bandwidth is not available.

1 11. The method of Claim 10, wherein the router obtains the Call\_Ref value of  
2 a new connection that cannot be handled and a message is sent to the corresponding  
3 endpoint to terminate the call.

1 12. The method of Claim 11, wherein said message is a non-standard H.245  
2 message.

1 13. The methods of Claim 9, wherein said querying includes sending of a  
2 H.323 IRQ and a response to said querying includes receiving an IRR message.

1 14. The method of Claim 13, wherein said step of admitting additional  
2 communications traffic includes determining a type of connection to be made by  
3 identifying IP addresses, TOS (type of service) and socket number range.

1 15. The method of Claim 9, wherein said network utilizes Internet Protocol.

1 16. An apparatus for managing traffic flowing through individual routers of a  
2 packet network, said routers reserving a given amount of bandwidth on interfaces of said  
3 individual routers for specific types of communications traffic, said apparatus  
4 comprising:

5 means for periodically querying endpoint connections based on data from a  
6 corresponding router connection table;

7 means for receiving responses from said periodic querying to determine a current  
8 connection status and bandwidth of said endpoints; and

9 means for calculating current bandwidth allocation for a specific type  
10 communications service handled by said router;

11 said router admitting additional communications traffic for a specific type of  
12 communications service if said given amount of bandwidth is available.

1 17. The apparatus of Claim 16, wherein said router is operable to drop packets  
2 of any new call if bandwidth is not available.

1 18. The apparatus of Claim 17, wherein the router is operable to obtain the  
2 Call\_Ref value of a new connection that cannot be handled and a message is sent to the  
3 corresponding endpoint to terminate the call.

1 19. The apparatus Claim 18, wherein said message is a non-standard H.245  
2 message.

1 20. The apparatus of Claim 16, wherein said querying includes sending of a  
2 H.323 IRQ and a response to said querying includes receiving an IRR message.

1 21. The apparatus Claim 16, wherein said apparatus is operable to determine a  
2 type of connection to be made by identifying IP addresses, TOS (type of service) and  
3 socket number range.

1 22. The apparatus of Claim 16, wherein said network utilizes Internet  
2 Protocol.

1 23. The apparatus of Claim 16, wherein said querying is accomplished on a  
2 per interface basis for each router.